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EXAMINER

MCMAHON, MARGUERITE J

ART UNIT	PAPER NUMBER
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3747

MAIL DATE	DELIVERY MODE
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10/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Objections

Claim 7 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Note that the subject matter of claim 7 is already cited in claim 1, from which it depends.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coleman (6,397,826) in view of Ludwig et al (5,839,505). Note a cooling device 56 for a fuel-recirculation circuit from the injection system to the tank 44 of a motor vehicle, comprising a pipe designed to be traversed by the fuel and comprising a side wall, where the cooling device does not comprise a radiating plate connected in a direct thermal exchange manner to the pipe, the side wall being entirely surrounded with a cooling current of air, characterized in that the pipe is coiled and comprises an alternating succession of elbows and rectilinear stretches.

Coleman shows everything except the side wall of the pipe having a plurality of longitudinally extending internal projections obtained by plastic deformation on the

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rectilinear stretches of the pipe, the projections comprising three parallel internal projections, and the at least one internal projections extends longitudinally along the rectilinear stretches comprised between pairs of the elbows.

Ludwig et al teach that it is old in the art to employ a pipe having a plurality of longitudinally extending projections obtained by plastic deformation on the rectilinear stretches of the pipe (see Figures 4-9), the projections extending longitudinally along the rectilinear stretches comprised between pairs of the elbows. It would have been obvious to one having ordinary skill in the art to modify Coleman by employing a plurality of longitudinally extending projections on the rectilinear stretches of the pipe, and to locate the projections along the rectilinear stretches comprised between pairs of the elbows, in order to improve heat transfer efficiency of the heat transfer pipe. It would have been an obvious matter of design choice to employ three parallel projections in lieu of two parallel projections, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Response to Arguments

Applicant's arguments filed 6/18/08 have been fully considered but they are not persuasive. Applicant argues that Coleman is silent about pipes having internal projections, and while Ludwig teaches the use of internal projections, Ludwig teaches a pipe having a side wall that includes dimples that do not extend longitudinally. Coleman has not been relied upon to teach the use of internal projections, so the argument is

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moot. The dimples or internal projections employed by Ludwig do extend longitudinally, and thus meets the requirement of the claim language.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marguerite J. McMahon whose telephone number is 571-272-4848. The examiner can normally be reached on Monday-Wednesday and Friday, 10am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Cronin can be reached on 571-272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Marguerite McMahon
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